

that the additional species here reported must be considered if the plant-food resources for waterfowl available in Ozette Lake are to be accurately evaluated. Its strategic location, as the most westerly freshwater lake in continental United States, certainly is not overlooked entirely by migrating waterfowl. If the value of Ozette Lake is recognized and the removal of the adjacent coniferous forest, which is likely to take place in the next decade or so, is properly managed, the plant-food potentialities may be expected to increase. On the other hand, if the forest-removal operations are carried on under conditions which permit excessive silting or accumulation of quantities of bark and waste wood in the lake then many of the shallow areas supporting aquatic plants may become unproductive.

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A NEW HAPLOPAPPUS FROM NEW MEXICO

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Haplopappus microcephalus sp. nov. Planta perennis, glabra vel subglabra, ut videtur suffrutescens, caulis pluribus ad 5 cm. altis, foliis firmis oblanceolatis trinervatis integris vel subintegris, imis oblanceolatis 2-4 cm. longis 2-3.5 mm. latis, caulinis similibus sed minoribus; capitula plura in inflorescentia corymbiformi, involucri 6-8 mm. altis turbinato-obconicis, bracteis imbricatis plurimis caudato-attenuatis, radiis flavis inconspicuis 2.5-3.0 mm. longis ca. 9-12, corollis disci fertilibus 4.3-4.7 mm. longis ca. 7-14, appendicibus styli anguste lanceolato-triangularibus, setis pappi ca. 30 inaequalibus albidis.

Perennial, glabrous or nearly so, apparently mat-forming and suffrutescens as in *H. acaulis*; stems several, about 5 cm. tall; basal leaves numerous, firm, 2-4 cm. long, 2-3.5 mm. wide, oblanceolate, acute, subpetiolate, entire or with an occasional small tooth, 3-nerved, the nerves resinous above; cauline leaves several, similar but somewhat smaller; heads several or rather many (up to 30 or more) in a condensed, rather flat-topped, corymbiform inflorescence; involucre 6-8 mm. high, turbinato-obconic, its firm, chartaceous bracts imbricate in several series, the outer gradually caudate-attenuate, the middle ones abruptly so, the innermost merely sharp-pointed; rays inconspicuous, yellow, about 2.5-3.0 mm. long

(counted as 9, 10, and 12 on three heads), fertile; disk-corollas yellow, about 4.3–4.7 mm. long, with short lobes, fertile, counted on three heads as 7, 13, and 14; style-appendages about 0.8 mm. long, narrowly lance-triangular, twice as long as the stigmatic portion of the branches; pappus of about 30 markedly unequal white bristles.

Type. Crevices of granite rocks in open yellow pine forest, altitude 8200 feet, Tres Piedras, Taos County, New Mexico, July 8, 1950, *Ripley* and *Barneby 10316*; just coming into bloom (State College of Washington Herbarium No. 155825).

The affinities of this species are obscure. *Haplopappus microcephalus* bears a strong habitual resemblance to *Petradoria*, but the heads are obviously quite different, and it lacks the technical characters by which that closely allied genus is distinguished from *Haplopappus* (vertically aligned phyllaries, sterile disk-flowers). There is also some resemblance, both habitally and technically, to *H. acaulis*, but that species, as well as the whole section to which it belongs, has solitary, much more numerous flowered heads. In Hall's monograph, *H. microcephalus* would key to the section *Hesperodoria*, and it might indeed be possible to see a distant relationship with *H. scopulorum* of that section, but the obtuse phyllaries, discoid heads, and definitely shrubby habit of that species preclude the assumption of any close relationship. I know of no other possible close allies of the new species, which is here confidently proposed.

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REVIEW

Maize in the Great Herbals. By JOHN J. FINAN with a foreword by Edgar Anderson. Chronica Botanica Co., Waltham, Mass. xvi + 149–191 pp. \$3.00 (San Francisco dealer: J. W. Stacey, Inc.)

This work, first published in the *Annals of the Missouri Botanical Garden* (35: 149–191, 1948), has now been reprinted in a handsomely-bound limited edition with a foreword by Edgar Anderson. By bringing together in a compact form the many scattered references to maize in the writings of the early explorers and the herbalists, Mr. Finan has performed an invaluable service to those interested in maize itself as well as to those interested in the history and origin of crop plants. It is fortunate that one of the very few large collections of herbals in this country is located at a center of active research in maize, the Missouri Botanical Garden. Due to this happy circumstance and to the cooperation of experts in modern and classic languages and in art history, Mr. Finan has produced a critical and well annotated account of the early history of maize.